Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Medication reconciliation post-discharge: percentage of discharges from January 1 to December 1 of the measurement year for members 18 years of age and older for whom medications were reconciled the date of discharge through 30 days after discharge (31 total days).

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of discharges from January 1 to December 1 of the measurement year for members 18 years of age and older for whom medications were reconciled the date of discharge through 30 days after discharge (31 total days).

Note from the National Quality Measures Clearinghouse (NQMC): For this measure, there are both Administrative and Hybrid Specifications. This NQMC measure summary is based on the Administrative Specification. Refer to the original measure documentation for details pertaining to the Hybrid Specification.

Rationale

Medication reconciliation is a critical piece of care coordination post-discharge for all individuals who use prescription medications. Prescription medication use is common among adults of all ages. On average, 82 percent of adults in the United States (U.S.) take at least 1 medication (prescription or nonprescription, vitamin/mineral, herbal/natural supplement); 29 percent take 5 or more.

Older adults are the biggest consumers of medications: 17 percent to 19 percent of people 65 and older take at least 10 medications in a given week (Slone Epidemiology Center, n.d.). Sixty-two percent of adults 65 and older have multiple chronic conditions; the higher number of chronic conditions they experience, the more providers are involved in their care. As the number of providers who are involved increases, the less likely patients are to understand, remember and reconcile the multiple instructions (Vogeli et al., 2007). Patients who have more than 1 chronic condition are likely to take more medications; therefore, ensuring proper medication reconciliation is imperative to preventing unintended complications.

The high prevalence of prescription medications can result in potentially negative consequences for patients if not used and monitored appropriately. Approximately 1.5 million preventable adverse drug events occur in the U.S. each year (Institute of Medicine [IOM], 2007). Many of these result from medication errors, drug interactions or inappropriate use of medications.

Hospitalization is a specific risk event where medication errors may occur. Hospital medication records for admitted patients are often incomplete when they are admitted. A comparison of medication histories maintained by the hospital for admitted patients with community pharmacy records revealed that the hospital's records omitted 25 percent of the medications in use. As a result, patients are discharged from the hospital without being continued on some chronic medications (Lau et al., 2000)

Significant changes can occur to a patient's medications during hospitalization. A study by Beers et al. (1989) found that 45 percent of all discharge medications were initiated during hospitalization. Provider errors and patient misunderstanding of discharge medications is also common. One observational study found that 81.4 percent of patients experienced a provider error or had no understanding of at least one intended medication change upon discharge. Providers were more likely to make an error on a medication that was unrelated to the primary diagnosis, which emphasizes the importance of knowing the patient's current medications upon admission and discharge so that they are properly reconciled. Patients were more likely to misunderstand medication changes that were unrelated to the primary diagnosis, which stresses the importance of proper communication to the patient prior to and following discharge (Ziaeian et al., 2012).

Implementing routine medication reconciliation after discharge from an inpatient facility is an important step to ensuring that medication errors are addressed and patients understand new medications. The process of resolving discrepancies on a patient's medication list reduces the risk of adverse drug interactions being overlooked and helps physicians minimize duplication and complexity of a medication regimen, which in turn may increase patient adherence to the regimen and reduce hospital readmission rates (Wenger & Young, 2004).

Evidence for Rationale

Beers MH, Dang J, Hasegawa J, Tamai IY. Influence of hospitalization on drug therapy in the elderly. J Am Geriatr Soc. 1989 Aug;37(8):679-83. PubMed

Institute of Medicine (IOM). Preventing medication errors: quality chasm series. Washington (DC): National Academies Press; 2007.

Lau HS, Florax C, Porsius AJ, De Boer A. The completeness of medication histories in hospital medical records of patients admitted to general internal medicine wards. Br J Clin Pharmacol. 2000 Jun;49(6):597-603. PubMed

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Slone Epidemiology Center. Patterns of medication use in the United States, 2006: a report from the Slone Survey. Boston (MA): Boston University; 25 p.

Vogeli C, Shields AE, Lee TA, Gibson TB, Marder WD, Weiss KB, Blumenthal D. Multiple chronic conditions: prevalence, health consequences, and implications for quality, care management, and costs. J Gen Intern Med. 2007 Dec;22 Suppl 3:391-5. PubMed

Wenger NS, Young R. Working paper: quality indicators of continuity and coordination of care for vulnerable elder persons. Santa Monica (CA): Rand Health; 2004 Aug.

Ziaeian B, Araujo KL, Van Ness PH, Horwitz LI. Medication reconciliation accuracy and patient understanding of intended medication changes on hospital discharge. J Gen Intern Med. 2012 Nov;27(11):1513-20. PubMed

Primary Health Components

Medication reconciliation

Denominator Description

Discharges for Medicare members age 18 years and older as of December 31 of the measurement year who had an acute or nonacute inpatient discharge on or between January 1 and December 1 of the measurement year (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist, or registered nurse on the date of discharge through 30 days after discharge (31 total days) (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA's) Committee on Performance Measurement and Board of Directors. Where applicable, measures also are assessed for construct validity using the Pearson correlation test. All measures undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis.

Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Mar 16. 1 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Hospital Inpatient

Managed Care Plans

Transition

Type of Care Coordination

Coordination between providers and patient/caregiver

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Effective Communication and Care Coordination
Health and Well-being of Communities
Making Care Safer
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Safety

Data Collection for the Measure

Case Finding Period

January 1 to December 1 of the measurement year

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Institutionalization

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Discharges for Medicare members age 18 years and older as of December 31 of the measurement year who had an acute or nonacute inpatient discharge on or between January 1 and December 1 of the measurement year. To identify acute and nonacute discharges:

> Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set)
> Identify the discharge date for the stay

The denominator for this measure is based on discharges, not members. If members have more than one discharge, include all discharges on or between January 1 and December 1 of the measurement year.

Readmission or Direct Transfer: If the discharge is followed by a readmission or direct transfer to an acute or nonacute inpatient care setting on the date of discharge through 30 days after discharge (31 total days) count only the last discharge. To identify readmissions during the 31-day period:

> Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set)
> Identify the admission date for the stay (the admission date must occur during the 31-day period)
> Identify the discharge date for the stay (the discharge date is the event date)

Note: Members must have been continuously enrolled from the date of discharge through 30 days after discharge (31 total days) with no gaps in enrollment.

Exclusions
Exclude both the initial and the readmission/direct transfer discharges if the last discharge occurs after December 1 of the measurement year.

Note: If a member remains in an acute or nonacute facility through December 1 of the measurement year, a discharge is not included in the measure for this member, but the organization must have a method for identifying the member's status for the remainder of the measurement year, and may not assume the member remained admitted based only on the absence of a discharge before December 1.

Value Set Information
Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase HEDIS Volume 2, which includes the Value Set Directory.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Medication reconciliation (Medication Reconciliation Value Set) conducted by a prescribing practitioner, clinical pharmacist, or registered nurse on the date of discharge through 30 days after discharge (31 total days)

Note: *Medication Reconciliation*: A type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record.

Exclusions

Unspecified

Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase HEDIS Volume 2, which includes the Value Set Directory.

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Medication reconciliation post-discharge (MRP).

Measure Collection Name

HEDIS 2016: Health Plan Collection

Measure Set Name

Effectiveness of Care

Measure Subset Name

Medication Management

Submitter

National Committee for Quality Assurance - Health Care Accreditation Organization

Developer

National Committee for Quality Assurance - Health Care Accreditation Organization

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

Financial Disclosures/Other Potential Conflicts of Interest

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal

of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates previous versions:

National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.
National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

Measure Availability

Source available for purchase from the National Committee for Quality Measurement (NCQA) Web site .

For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

Companion Documents

The following is available:

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical update. Washington (DC): National Committee for Quality Assurance (NCQA); 2015 Oct 1. 12 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

NQMC Status

This NQMC summary was completed by ECRI Institute on March 20, 2009. The information was verified by the measure developer on May 29, 2009.

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Copyright Statement

Production

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

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